

Current Sensor Module ACS712 - 20A



Accurate sensor to measure AC/DC current up to 20A. The sensor can even measure high AC mains current and is still isolated from the measuring part due to integrated hall sensor. The board operates on 5V.

Specifications:

- Current sensor chip: ACS712ELC-20A.
- Pin 5V power supply, on-board power status LED.
- The module can be measured plus or minus 20A current, corresponding analog output: 100 mV/A.
- No test current through, the output voltage is $VCC/2$.
- PCB size: 31(mm) x 13(mm).

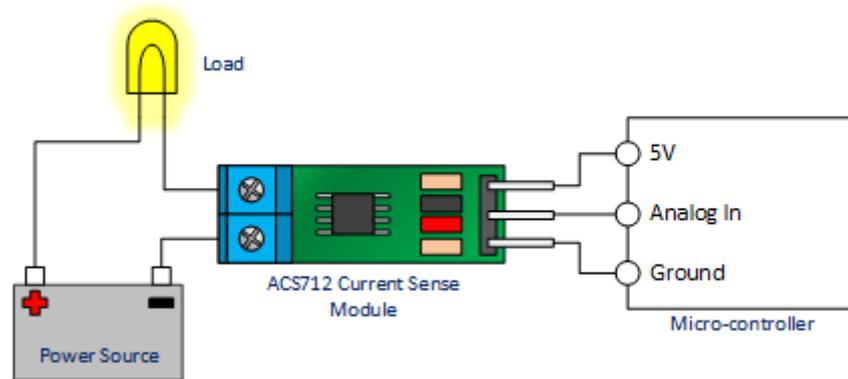
Features

- 100 mV/A output sensitivity
- 5.0 V, single supply operation
- Output voltage proportional to AC or DC currents
- Factory-trimmed for accuracy
- Extremely stable output offset voltage
- Nearly zero magnetic hysteresis
- Ratiometric output from supply voltage
- Low-noise analog signal path
- Device bandwidth is set via the new FILTER pin
- 5 μ s output rise time in response to step input current
- 80 kHz bandwidth
- Total output error 1.5% at $T_A = 25^\circ\text{C}$
- Small footprint, low-profile SOIC8 package

- 1.2 m Ω internal conductor resistance
- 2.1 kVRMS minimum isolation voltage from pins 1-4 to pins 5-8

Note: ACS712 is based on Hall detection principle, please try to avoid the magnetic field, when using as it may impact the reading accuracy.

ACS712 current sensor operates from 5V and outputs analog voltage proportional to current measured on the sensing terminals. You can simple use a microcontroller ADC to read the values.



Sensing terminal can even measure current for loads operating at high voltages like 230V AC mains while output sensed voltage is isolated from measuring part.

